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EXAMINER	
DANIELS, ANTHONY J	
ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/837,342	WATANABE, KAZUMITSU	
	Examiner	Art Unit	
	Anthony J. Daniels	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,37 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,37 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment, filed 3/13/2007, has been entered and made of record. Claims 1-20,37 and 38 are pending in the application.

Response to Arguments

1. Applicant's arguments regarding the independent claims and the cited combinations have been fully considered but they are not persuasive.

Applicant argues with respect to claim 1,15,17 and 19, "...there is no motivation in either Bender or Anderson et al. to modify the device of Yamagishi to translate a first image with respect to a monitor image... The examiner respectfully disagrees with this assertion and submits that Bender et al. states, in column 4, Lines 4-7, that images can be properly correlated to obtain a smooth panoramic image. Thus, Bender gives motivation for translating images with respect to each other and does not teach that one of ordinary skill would look to translate only previously captured images.

Applicant argues similarly with respect to claims 8,16,18 and 20, submitting that Fukushima et al. does not cure the deficiencies which Yamagishi et al., Bender et al. and Anderson et al. allegedly have. Thus, the arguments above apply here being that the examiner has submitted that Yamagishi et al., Bender et al. and Anderson et al. do not have the alleged deficiencies.

Lastly, with respect to claims 37 and 38, applicant submits that Yamagishi et al. teaches only teaches a single monitor image, not displaying two monitor images as recited in claims 37

and 38. The examiner submits that both of the images of Figure 14B in Yamagishi et al. can be viewed as monitor images as both are displayed on the display for monitoring. However, on p. 14, last line and p. 15, first line of the Remarks, applicant submits that the monitoring image is what the camera currently points at. This is quite different than simply stating, "image obtained...for monitoring". An amendment of this sort would overcome Yamagishi et al., as Yamagishi et al. does not teach displaying two images of what the camera is currently pointed at. However, the examiner stresses applicant consider any new matter situation that may arise with this amendment.

The examiner believes all arguments have been addressed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-5,7,15,17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi et al. (US # 7,136,096) in view of Bender et al. (US # 6,611,629).

As to claim **1**, Yamagishi et al. teaches a digital camera (Figure 1) comprising: a photographing unit (Figure 1, image sensing element "103") which picks-up an image and obtains image data (Col. 19, Lines 17-20); a storage control unit (Figure 1, memory control circuit "111") which stores the image data in the form of an image data file in a predetermined manner in a recording medium (Figure 1, memory "111" and recording medium "200a"; Col. 20,

Lines 1-5); a reconstruction control unit (Figure 1, memory control circuit "107") which reconstructs the image data stored in said recording medium (Col. 20, Lines 5-8); an image data processing unit which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit to produce an image data (Col. 25, Lines 2-13; Col. 26, Lines 1-5), and makes said recording medium store the produced image data (Col. 29, Lines 29-43); a display unit which displays the images (Figure 1, image display unit "110"); a display control unit (Figure 1, memory control circuit "107") which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (Figure 14B), wherein the image data comprises a first image (Figure 14B, freeze image) and image data obtained by said photographing unit for monitoring (Figure 14B, live image); and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (Figure 1, operation means "122" – "128"; Col. 21, Line 22 – Col. 22, Line 14). The claim differs from Yamagishi et al. in that it further requires that said operation instruction signals include translation instructions input by a user to move a first image with respect to the image obtained by the photographing unit for monitoring after the first image and the image obtained by the photographing unit for monitoring are displayed by the display unit.

In the same field of endeavor, Bender et al. teaches a composite image generation system, wherein two images are captured by a video camera for composite (panoramic) image generation. The images are stitched together via a personal computer. On the PC, the user

manually moves the images with respect to each other after the images are displayed to achieve the composite image (Col. 3, Line 65 – Col. 4, Line 9; Col. 6, Lines 20-30). In light of the teaching of Bender et al., it would have been obvious to one of ordinary skill in the art to include the ability in the camera of Yamagishi et al. to move the freeze image and the live image with respect to each other, because an artisan of ordinary skill in the art would recognize that this would allow the images to be properly correlated; thus obtaining a smooth panoramic image (see Bender et al., Col. 4, Lines 4-7).

Anderson et al. (6,680,749): ***The examiner also submits Anderson et al. regarding the combination of Yamagishi et al. and Bender et al. Anderson et al. teaches implementation of an operating system in a digital camera. This has significant advantages in that application programs previously available in PCs can now be run on the digital camera. Such programs can be Adobe Photoshop and Quark Express (see Anderson et al., Col. 2, Lines 35-47).***

As to claim **2**, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 1, wherein said operational instruction inputting unit can designate a portion of the plurality of the image data where the images are to be combined (see Yamagishi et al., Figure 9, Col. 24, Lines 54-61).

As to claim **3**, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 1, wherein said operational instruction inputting unit can designate whether the image data is to be displayed in enlarged or reduced manner (see Yamagishi et al., Figure 9; *{Images will be displayed smaller in 2x2 panoramas compared to panoramas in 1x2.}*).

As to claim **4**, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 1, wherein said operational instruction inputting unit includes a touch panel (see Yamagishi et al., Col. 21, Lines 22-27).

As to claim **5**, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 1, wherein said image data processing unit can combine a plurality of the image data recorded in said recording medium (see Yamagishi et al., Col. 29, Lines 22-29).

As to claim 7, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 5, wherein said image data processing unit can perform color correction when combining a plurality of the image data stored in said recording medium (see Yamagishi et al., Col. 19, Lines 27-31).

As to claims **15**,**17** and **19**, the limitations of these claims can be found in claim 1. Claim 17 is a method claim corresponding to the apparatus claim 1.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi et al. (US # 7,136,096) in view of Bender et al. (US # 6,611,629) and further in view of Miyatake et al. (US # 6,466,262).

As to claim **6**, Yamagishi et al., as modified by Bender et al., teaches the digital camera according to claim 5. The claim differs from Yamagishi et al., as modified by Bender et al. in that it further requires wherein said image data processing unit can perform swing and/or tilt correction when combining a plurality of the image data stored in said recording medium.

In the same field of endeavor, Miyatake et al. teaches a digital camera for forming a panoramic image. When combining the images, an image processing unit in the camera performs

tilt correction on the images (Col. 6, Lines 21-49). In light of the teaching of Miyatake et al., it would have been obvious to one of ordinary skill in the art to include the tilt correction of Miyatake et al. in the camera of Yamagishi et al., as modified by Bender et al., because an artisan of ordinary skill in the art would recognize that this would allow for a smooth, natural panoramic image to be output.

3. Claims 8-14,16,18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi et al. (US # 7,136,096) in view of Bender et al. (US # 6,611,629) and further in view of Fukushima et al. (US # 5,903,303).

As to claim **8**, Yamagishi et al. teaches a digital camera (Figure 1) comprising: a photographing unit (Figure 1, image sensing element "103") which picks-up an image and obtains image data (Col. 19, Lines 17-20); a storage control unit (Figure 1, memory control circuit "111") which stores the image data in the form of an image data file in a predetermined manner in a recording medium (Figure 1, memory "111" and recording medium "200a"; Col. 20, Lines 1-5); a reconstruction control unit (Figure 1, memory control circuit "107") which reconstructs the image data stored in said recording medium (Col. 20, Lines 5-8); an image data processing unit which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit to produce an image data (Col. 25, Lines 2-13; Col. 26, Lines 1-5), and makes said recording medium store the produced image data (Col. 29, Lines 29-43); a display unit which displays the images (Figure 1, image display unit "110"); a display control unit (Figure 1, memory control circuit "107") which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring

and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (Figure 14B), wherein the image data comprises a first image (Figure 14B, freeze image) and image data obtained by said photographing unit for monitoring (Figure 14B, live image); and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (Figure 1, operation means "122" – "128"; Col. 21, Line 22 – Col. 22, Line 14); said display control unit can make said display unit simultaneously display the plurality of image data obtained by said photographing unit (Figure 14B), wherein the. The claim differs from Yamagishi et al. in that it further requires that said photographing unit includes a plurality of CCDs which simultaneously pick-up an image of same or a plurality of objects and obtain a plurality of image data, and said operation instruction signals include translation instructions input by a user to move the first image with respect to the image obtained by the photographing unit for monitoring after the first image and the image obtained by the photographing unit for monitoring are displayed by the display unit.

In the same field of endeavor, Bender et al. teaches a composite image generation system, wherein two images are captured by a video camera for composite (panoramic) image generation. The images are stitched together via a personal computer. On the PC, the user manually moves the images with respect to each other after the images are displayed to achieve the composite image (Col. 3, Line 65 – Col. 4, Line 9; Col. 6, Lines 20-30). In light of the teaching of Bender et al., it would have been obvious to one of ordinary skill in the art to include the ability in the camera of Yamagishi et al. to move the first image and the image obtained by

the photographing unit for monitoring with respect to each other, because an artisan of ordinary skill in the art would recognize that this would allow the images to be properly correlated; thus obtaining a smooth panoramic image (see Bender et al., Col. 4, Lines 4-7).

In the same field of endeavor, Fukushima et al. teaches a digital camera (Figure 1) including two CCD imagers (Figure 1, CCD imagers "1 OR" and "10L") with associated lenses (Figure 1, lenses "8R" and "8L") and exposure control members (Figure 1, exposure control members "9R" and "9L"). The digital camera combines images together that are taken by the two CCD imagers (Col. 3, Lines 39-42). In light of the teaching of Fukushima et al., it would have been obvious to one of ordinary skill in the art to include the second image pickup portion of Fukushima et al. in the system of Yamagishi et al., as modified by Bender et al., because an artisan of ordinary skill in the art would have recognized that providing the second image pickup portion would provide a faster solution for the panorama image pickup of Yamagishi et al., as modified by Bender et al.

Anderson et al. (6,680,749): ***The examiner also submits Anderson et al. regarding the combination of Yamagishi et al. and Bender et al. Anderson et al. teaches implementation of an operating system in a digital camera. This has significant advantages in that application programs previously available in PCs can now be run on the digital camera. Such programs can be Adobe Photoshop and Quark Express (see Anderson et al., Col. 2, Lines 35-47).***

As to claim **9**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said image data processing unit can combine a plurality of image data when simultaneously displaying the plurality of the image data on said display control unit (see Yamagishi et al., Figure 14B, Bender et al., Figure 5).

As to claim **10**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said image data processing unit can perform color correction for each of the plurality of image data (see Yamagishi et al., Col. 19, Lines 27-31).

As to claim **11**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different zooming ratios (see Fukushima et al., Col. 3, Lines 26,27; *{Since different drive portions are controlling zoom drive, it is inherent that the zooming ratios can differ from each other.}*).

As to claim **12**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different shutter speed (see Fukushima et al., Col. 4, Lines 41-50, *{Since different drive portions are controlling the shutter, it is inherent that the shutter speeds can differ from each other.}*).

As to claim **13**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different exposure values (see Fukushima et al., Col. 4, Lines 41-50, *{Since different drive portions are controlling the exposure control members, it is inherent that the exposure values can differ from each other.}*).

As to claim **14**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different white balance values

(see Fukushima et al., Col. 11, Lines 26-31; *{Since different drive portions are controlling the exposure control members, it is inherent that the white balance values can differ from each other.}*).

As to claims **16**,**18** and **20**, the limitations of these claims can be found in claim 8. Claim 18 is a method claim corresponding to the apparatus claim 8.

As to claim **37**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches a digital camera (see Yamagishi et al., Figure 1) comprising: a photographing unit (Figure 1, image sensing element "103") which picks-up an image and obtains image data (see Yamagishi et al., Col. 19, Lines 17-20); a storage control unit (see Yamagishi et al., Figure 1, memory control circuit "111") which stores the image data in the form of an image data file in a predetermined manner in a recording medium (see Yamagishi et al., Figure 1, memory "111" and recording medium "200a"; Col. 20, Lines 1-5); a reconstruction control unit (see Yamagishi et al., Figure 1, memory control circuit "107") which reconstructs the image data stored in said recording medium (see Yamagishi et al., Col. 20, Lines 5-8); an image data processing unit which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit to produce an image data (see Yamagishi et al., Col. 25, Lines 2-13; Col. 26, Lines 1-5), and makes said recording medium store the produced image data (see Yamagishi et al., Col. 29, Lines 29-43); a display unit which displays the images (see Yamagishi et al., Figure 1, image display unit "110"); a display control unit (see Yamagishi et al., Figure 1, memory control circuit "107") which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the

image data produced by said image data processing unit (see Yamagishi et al., Figure 14B), wherein the image data comprises a first image (see Yamagishi et al., Figure 14B, freeze image) and image data obtained by said photographing unit for monitoring (see Yamagishi et al., Figure 14B, live image); and an operational instruction inputting unit which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (see Yamagishi et al., Figure 1, operation means "122" – "128"; Col. 21, Line 22 – Col. 22, Line 14); wherein said photographing unit includes a plurality of CCDs which simultaneously pick-up an image of same or a plurality of objects and obtain a plurality of image data (see Fukushima et al., Figure 1; Col. 3, Lines 15-17), said display control unit can make said display unit simultaneously display the plurality of image data obtained by said photographing unit (see Yamagishi et al., Figure 14B), and said operation instruction signals include translation instructions input by a user to move first image data obtained by said photographing unit for monitoring with respect to second image data obtained by said photographing unit for monitoring after the first image data and the second image data are displayed by the display unit (see Bender et al., Col. 3, Line 65 – Col. 4, Line 9; Col. 6, Lines 20-30). *See rejection of claim 8 above.*

As to claim **38**, Yamagishi et al., as modified by Bender et al. and Fukushima et al., teaches a method of displaying images obtained by a digital camera (see Yamagishi et al., Figure 14B), the method comprising: simultaneously picking-up a plurality of images of a same or different objects and obtaining image data (see Fukushima et al., Figure 1; Col. 3, Lines 15-17); storing the image data in a recording medium (see Yamagishi et al., Figure 1, memory "111" and recording medium "200a"; Col. 20, Lines 1-5); reconstructing the image data stored in said

recording medium (see Yamagishi et al., Figure 14B); simultaneously displaying first image data obtained by a photographing unit for monitoring and second image data obtained by a photographing unit for monitoring on a display unit (see Yamagishi et al., Figure 14B); translating the first image data with respect to the second image data after the first image data and the second image data are displayed by the display unit (see Bender et al., Col. 3, Line 65 – Col. 4, Line 9; Col. 6, Lines 20-30); combining the picked-up image data and the reconstructed the image data to produce a combined image data, and storing the combined image data in said recording medium (see Yamagishi et al., Figure 17-Figrue 21; Figure 21, "S183"); and simultaneously displaying on a display of said digital camera a plurality of images corresponding to the picked-up image data for monitoring and the reconstructed image data, or displaying on a display of said digital camera the combined image data (see Yamagishi et al., Figure 14B). *See rejection of claim 8 above.*

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

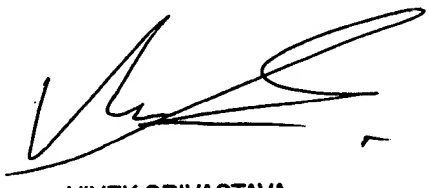
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (571) 272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD
6/22/2007



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